

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

1. (Currently Amended) A micro-fabrication method which comprises applying a femtosecond pulse laser beam to a plastic material to be processed exhibiting a glass phase transition by heating and having a heat-shrinkage to form laser-processed patterns on the surface of or in the above plastic material to be processed, wherein the formed laser-processed pattern is only scaled down by the heat treatment without its shape change, and then heat-treating the plastic material to be processed at a temperature not lower than a glass transition temperature T_g ~~to fine~~ to scale down the formed patterns by heat-shrinkage.

2. (Previously Presented) The micro-fabrication method according to claim 1, which comprises using a plastic material to be processed wherein the formed laser-processed pattern is not lost by the heat treatment.

3. (Cancelled).

4. (Currently Amended) The micro-fabrication method according to claim 1, wherein the temperature of the heat treatment T is $T_g \leq T \leq T_g + 200^\circ\text{C}$.

5. (Currently Amended) The micro-fabrication method according to claim 1, wherein the process is carried out while focusing a light beam so as to have the beam spot size of the femtosecond pulse laser beam at the position for processing the plastic material to be processed to 100 nm to 10 μm .

6. (Currently Amended) The micro-fabrication method according to claim 5, wherein ~~[[the]]~~ a light beam focusing to the plastic material to be processed of the femtosecond pulse laser beam is carried out using an objective lens of 0.1 to 1.4 numerical aperture and 5 to 100 times magnification.